The Blurb

Newsletter of The Phil-Mont Mobile Radio Club

64 Years of Public Service, 1949 to 2013

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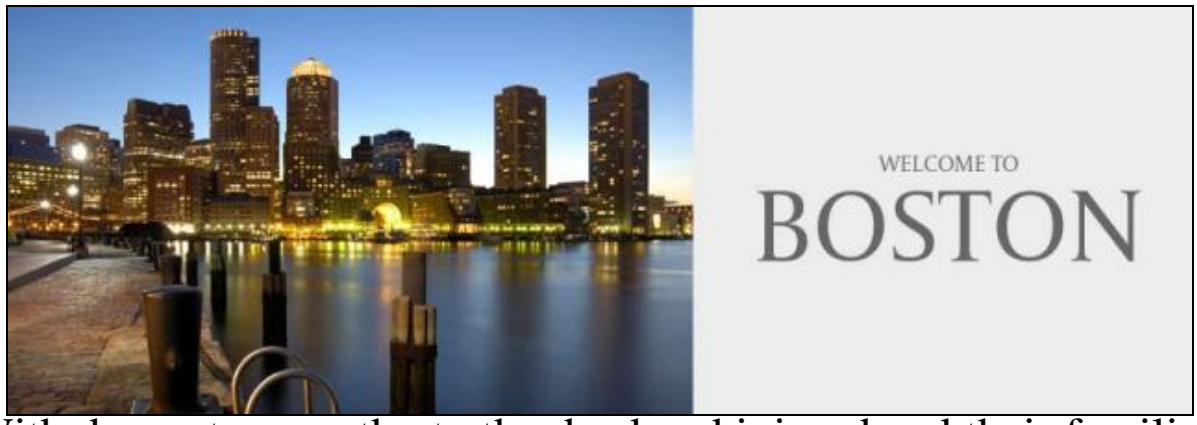
April 15th, 2013



With deepest sympathy to the dead and injured and their families.

What's up in May …

Mother's Day
Kentucky Derby
Chocolate Chip Day
Memorial Day
Board Meeting
Field Day prep discussion at the General Meeting
And Al, W3STW will finally tell us about ACARS!

And the weather's just right for antenna work!

The Blurb is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. ***Copying and quoting*** is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor. ***Subscriptions*** are available to non-members for $12, addressed to the Treasurer.

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Submissions deadline: All copy must be in the hands of the Editor by the 20th of the previous month.

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KB3SJS(14)
KB3MIV(14)
WA3KIO(13)
N3QV(13)
K3GBA(13)
W3AOK(A)

Contact Phil-Mont: P.O. Box 88 Abington, PA 19001
http://www.phil-mont.org
Website: Eric N3QV & Andrew KC2PMW
For club information: Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: KB3IV

Sunday Morning Net Schedules

- **2 Meter/ 70cm Net**..... at 0930L on W3QV repeater
- **10-on-10 Net** ..... at 1000L 28.393 MHz USB (±QRM)
- **75 meter Net** ..... at 1020L 3.993 MHz LSB
- **ARES** at 2100L on the W3QV repeater

Committees

Audit: NS3K
Blurb folding: KB3IV & N3GLU
Directory: KB3IV
DX: N3MT
Emerg.Coor: K3HWE
Field Day: KE3QB
Internet: N3QV & KC2PMW
Membership: N3XKE
Net Control: KB3IV
Publicity: W3RM
Program: Club VP
Public Service: KE3QB
Refreshments: W3AOK
Repeater: W3AOK
Scholarship: W3RM
Sunshine: N3GLU
VE Program: NS3K
Welcome: N3UBY
Youth: KC2PMW

All visitors are welcome!

The club meets at 7:30 PM on the *second* non-holiday Wednesday each month except July and August at **Roxborough Memorial Hospital,** 5800 Ridge Avenue, Philadelphia, PA 19128
Maps and directions are available at www.phil-mont.org.

License Examinations are held on the fourth **non-holiday Thursday** each month at **Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002**
Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or jmccloskey@msn.com for the latest information.

Club Stations **W3QV/R: The Jim Spencer Memorial Repeater System**
Ridge & Port Royal Avenues, Philadelphia, PA ***Trustee:*** **W3RM**
147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz
Reach us on EchoLink through W3QV-R
W3AA *Trustee:* WU3I
W3EM: Field Day/special event station *Trustee:* N3QV

The Officers

Pres: **KB2ERL Bob Nicotera** bnic1903@msn.com
Vice Pres: **W3STW Al Tribble** wstw@juno.com
Sec: **ND3B Rick Devirgiliis** nd3b@arrl.net
Treas: **W3RM Richard A. Moll** roger.mike@verizon.net
Asst. Treas: **N3MT Michael P. Taraborrelli** michaelmt_1999@yahoo.com

The Prez Sez …

Hey everyone here we are at May and time to get ready for all the great summer activities; there are still those of us trying to recover from superstorm Sandy and make the best of the summer at the same time. After the May meeting there's only one more meeting in June before our summer hiatus so start firming up those field day plans. And if you weren't sure about going, think about making this year the one to start. When I finally decided years ago to give up the shore on that weekend I had such a good time I wondered why I waited so long, now I wouldn't miss it for the world. Also keep in mind our digital net on Tuesday evenings at 7 pm on the repeater hosted by our knowledgeable and amiable digital gurus Al W3STW and Barry K3EUI.
Well that's it for now hope to see you all at the May meeting and with that I leave you with some trivia that will haunt mankind till the end of time:

Why do we put our two cents in when we only get a penny for our thoughts? Where's that extra penny going to? Once we get to heaven are we stuck wearing the clothes we were buried in for eternity? Why does a round pizza always come in a square box? What disease did a cured ham actually have? Why is it that people say they slept like a baby when babies wake up every two hours?

I'll have some more of these interesting facts next month, till then laugh, love and be happy!

73 Bob, KB2ERL

Phil-Mont
Birthdays & Tidbytes

MAY BIRTHDAYS

02 Audrey Uebelhoer - KB3UFX

05 Paul Policarpo - N3PP

15 Doug Crompton - WA3DSP
James Kavanagh - WQ3H
17 Herb Scott - N3OLK

28 Peggy Kaufmann - KB3DID
29 Maggie Leber - K3XS
30 Bill Chedeville - W3GQD

MEMBERSHIP STATS

At press time P.M.R.C. has:
80 Full paid members
10 Family members
2 Youth members
1 Honorary member

ARRL VEC

The Thursday evening session is on the 23rd this month.

As always, many thanks to our VE team!

From the Secretary…

Membership meeting April 10, 2013

V.P. Al, W3STW opened the meeting at 19:35 hours, President Bob, KB2ERL is enroute. Al informs us the May program will be about ACARS which was postponed from an earlier date. June will be about field day preparations and there are no meetings in July and August. He urges all to submit program ideas.

John, KB3SJS has taken on the duties of Field Day coordinator. The band captains thus far are: 75 – still open; 40 – Dick, W3RM; 20 – John, KB3SJS; 15 – Fred, KA3IRJ; 10 – Barry, K3EUI; 6 – Bill, W3AOK and Jack, W3BXH.

The members tried to persuade Al, W3STW to operate satellite at field day. We'll find out if we were successful in June.
Bill, W3AOK says field day shirts and hats are available from the ARRL website.

Steve, WU3I will once again treat us to his fine field day cuisine at sites A and B. He also reports the club just sent money to FAR for this year's scholarships. He thanked John, KC2TUT for donated equipment and reminded that all donations are tax deductible as PMRC is a 501c (3) organization.

Ed, KB3IV reports nets are running smoothly and can always use more volunteers in the rotation. Fred, KA3IRJ seems to have become unofficial 75M net control. Thanks Fred!
Jim, NS3K reports last month saw 7 candidates at the VE session. 4 new licenses were issued as well as 3 upgrades. Go to the ARRL website under VEC to become a VE as more help is always welcome!

Bill, W3AOK started the evening's program at 20:15 hours.

de Rick, ND3B

THIS AND THAT

Miscellaneous Ramblings

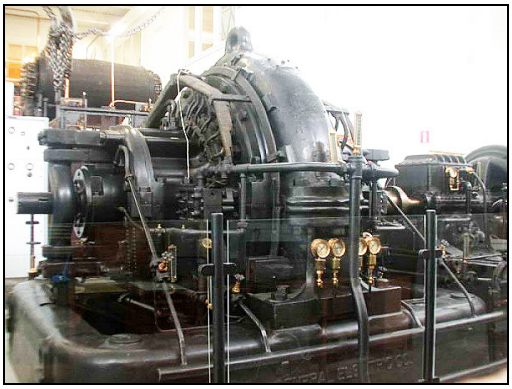
Bob Thomas, W3NE

Professor Bob, W3NE

RCA RADIO CENTRAL - PART 1

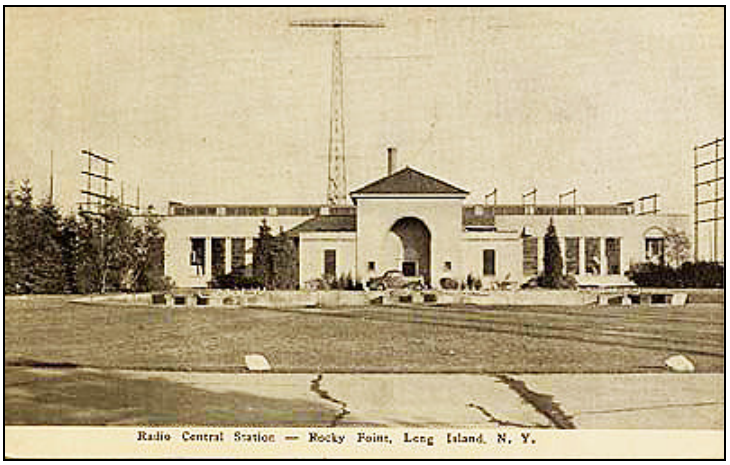
World's greatest SW station

All U.S. wireless communications were commandeered by the Navy during the First World War and when hostilities ended there was overwhelming advocacy by the Navy and certain members of Congress to maintain that exclusive control. Their reason was concern that foreign-owned companies, British in particular, would again dominate North American communications as they had prior to the war. The undersea cable from North America to Europe had been laid by a British company and English sources controlled the supply of gutta-percha, the only effective insulation material available then that could be used in a competing cable. British-held American Marconi Company had been principal supplier of marine and point-to-point communications before the war, and they were poised to assume that role again with a pending purchase of ten 200kW long wave Alexanderson alternators from General Electric.



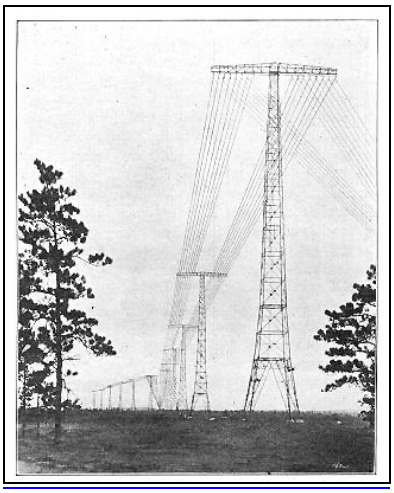
When the possibility of a naval takeover of wireless eventually waned, Navy officials, including Assistant Secretary Franklin D. Roosevelt, influenced the president of General Electric to consider formation of a new American-controlled company that would hold patents owned by the Navy and GE, and operate new world-wide communications services. As formation of the Radio Corporation of America got under way British management and stockholders immediately recognized the futility of attempting to compete, and readily agreed to sell their patents to the RCA and allow American Marconi staff, including David Sarnoff, to operate the new company. The scope of patents held by RCA was later enlarged to encompass key holdings of Westinghouse Electric, AT&T, Western Electric and United Fruit Company.

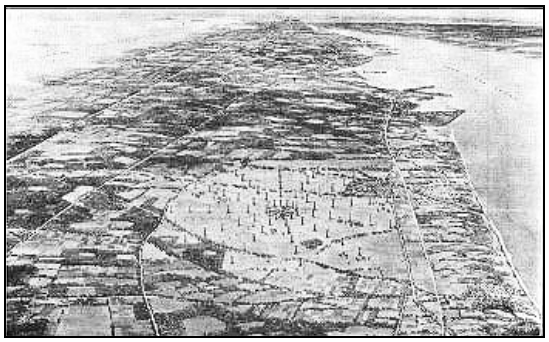
First order of business was to establish wireless facilities for world-wide government, marine, and commercial communications. Two sites were selected for the new RCA Radio Central short wave station in open terrain at the eastern tip of Long Island, eighty miles from Manhattan. A receiving site was established at Riverhead, while transmitters were located 16 miles to the east at Rocky Point. Separation of the two sites was sufficient to permit simultaneous transmission and reception without interference. We will begin with a description of the Rocky Point installation; Riverhead reception facilities will be described Part 2 of this article.


Radio Central Station — Rocky Point, Long Island, N. Y.

The Rocky Point transmission facility of Radio Central was situated on 6,400 acres of a former farm. It was initially planned to erect twelve antennas, each 1.5 miles long (!) spaced radially at 30 degree intervals, like spokes in a wheel, for transmissions in any direction. The reason for the extraordinary length was that wireless communications at that time were conducted at very low frequencies, typically 15 to 22 *kilocycles* (~1500 meters), necessitating comparably long aerials. Each antenna would be driven by a 200 kW Alexanderson Alternator, a rotary a-c generator with 600 poles to produce very low frequency RF by the most efficient method known at that time.[1] The possibility of DX propagation by reflection from the ionosphere back to earth still had not been recognized. It would be largely left to amateurs to discover that bonanza by 1923 after "banishment" by our government to wavelengths shorter than 200 meters (1500 kc and higher).

Taking a conservative approach, only two of the twelve planned antennas were initially erected. The antennas were massive affairs. Each one used sixteen silicon-bronze wire conductors suspended from 150-foot cross arms on top of twelve towers 410 feet high. Towers were spaced 1260 feet apart for an effective radiator length of 4224 meters, about three wavelengths. Large air core inductors under the first six towers supplied uniform drive along the radiators for what was known as a "multiple-tuned" antenna. As we all know, "a good ground is important," thus a ground system for each antenna was made of 225 *miles* of buried copper wire!





First transmissions from WQK and WQL at Rocky Point were made in October 1921 with Morse code at 200 words per minute (faster than even W3RM can copy) from punched tape readers in the RCA traffic center at

64 Broad Street, New York. Transmissions were also made in Morse by hand keys and later teletype messages were sent with carrier On/Off for Mark/Space and subsequently for experimental purposes by FSK, with the Mark frequency transmitted by Rocky Point and Space frequency from RCA at Tuckahoe, N.J. – what a lash-up that must have been!

The conservative decision by RCA management to initially build only two of the planned twelve long wave antennas paid off almost immediately. In 1922, just months after Radio Central went into operation, radio amateurs and scientists were at the threshold of discovering high frequency radio waves are reflected back to earth by the ionosphere. Hams suddenly began making DX QSOs on 20 meters with comparatively low power that required 200 kW on low frequencies. That period also coincided with development of transmitting-type vacuum tubes capable of generating considerable power output.

RCA transmitter engineers soon produced designs for two similar transmitters: one was rated for 40 kW input of 6.6-10 Mc. the other with 20 kW on 10-21 Mc.[2] The final amplifier used four water-cooled 207s in push-pull parallel with 10 kV plate voltage at low frequencies or 7.5 kV at the high end. The finals were driven by an exciter with temperature-controlled crystal oscillators on 1.5 to 3 Mc., depending on day or nighttime operation, followed by multipliers and buffers driving two 861s in push-pull. Over thirty of those transmitters were eventually in operation at Rocky Point, so business must have been pretty good.

Keying of the exciter was unconventional, to say the least. Plate voltage of the 861 first doubler was fed through a dropping resistor – obviously one capable of very high dissipation. The plates of two parallel-connected 211 keying tubes were also connected to the dropping resistor so on key-down, doubler plate voltage was shunted to ground through the 211s, interrupting RF drive. Strange as that scheme seems, it was found to be the most effective for keying up to 400 wpm. Subsequent transmitters were operated at frequencies up 32 Mc. Self-contained roll-around Heising amplitude modulators with 849 output tubes could be plugged into any transmitter when AM was required. Transmission to England by SSB was conducted in January 1923, and VHF experimental transmitters and antennas were designed and operated for investigations of FM and television. RCA Communications' Radio Central operated over forty short wave transmitters to handle the volume of traffic originating and passing through Rocky Point.

HF antenna systems consisted of long wire directional arrays, e.g., Rhombics, and complex horizontal and vertical broadside arrays, all of them a maze of radiators, guys and support poles, and were widely separated to avoid interaction. An elaborate switching system used parallel lines made of ¼" copper wire, often longer than a half-mile, to enable connection of any transmitter to any antenna.

During WW-II Rocky Point facilities supported the armed forces and in post war years the Voice of America. However, the world of communications was changing rapidly, and it was no favor to Rocky Point that RCA Americom was formed as a vigorous competitor in the satellite industry. The last of the original 410-foot towers had been taken down at the end of 1977 and Rocky Point was closed a year later. The land was sold for one silver dollar to the State of New York for conservation as the Rocky Point Natural Management Area.

Parallel development of the Radio Central Riverhead receiving station will be described next month in Part-2 of this article, which will also be my final regular article for the *Blurb*.

NOTES

[1] Swedish scientist Ernst Alexanderson invented an alternator in 1904 capable of generating high power alternating current at frequencies as high as 100 kc. The alternator employs a thin laminated iron rotor with slots in its periphery to create rotating poles. That slotted rotor passes between 600 fixed poles of an iron stator wound with two coils. A d-c field current is passed through one of the stator coils. A voltage is induced in the other stator coil as rotor slots alternately interrupt the magnetic flux from the field. Alexanderson alternators had a long life; several were moved by the Navy to the Pacific theatre of WW-II and one was in service by the U.S. Air Force until 1951. The last one in operation was at SAQ in Sweden until 1996, when it was removed from service and preserved for periodic demonstrations. An SAQ demo held last July can be seen on YouTube at: http://www.youtube.com/watch?v=neJeIxaMqF0

[2] "QST Visit Riverhead and Rocky Point" *QST*. 9/40, pp 8-14

For Sale:

Heathkit SB220 linear amplifier excellent condition low hours
$650.00 contact Frank KB2AYS at 609-312-9392 *(de Bob, ERL)*

Check out this rope for your antenna project –

3/32" Braided Olive Drab - Dacron / Polyester cord

This is a high quality braided polyester cord with a breaking strength of 210 pounds. Proudly Made in the U.S.A.!

This is a gorgeous *solid braid* perfect for dipole antennas. Very low stretch and strong. Will withstand the weather & sun for 7 to 10 years.

PRICE $10.00 PER 100 FEET
SOLD IN 100 FOOT LOTS
CONTACT STEVE WU3I AT WU3I@ARRL.NET

PRINTER TONER FOR SAMSUNG CLP 300 AND COMPATABILES. NOT OEM.
2 BLACK 1 YELLOW 1 MAGENTA. 40.00 SHIPPING INCLUDED
Stephen Hoch WU3I Steve wu3i@arrl.net
CELL 2156056074

Free to good home - Motorola modem and **Netgear wireless router**. They work fine but I'm still looking for the installation CD. Call or write ND3B (contact info on page 2)

We finally switched to Fios here at Blurb HQ and they actually provide a modem with their service. I bought my own when I had Comcast because they wanted to rent me one.

Have you heard about D-Star?

Philadelphia Digital Radio Assn meets the first non-holiday Monday of each month at the Community Ambulance Assn 1440 East Butler Pike Ambler, Pa. 19002 at 7:00 pm.

The club has two D-star repeaters on the following frequencies: On two meters - 146.61 (-) and on 70 cm 445.18125 (-)

I run a weekly club D-star net on Mondays at 8:00 pm local time on the club 2 meter frequency.

de Jim, NS3K

An interesting event from Doug, WA3DSP

The Southeastern Pennsylvania Cold War Historical Society proudly announces
The Spring 2013 "History in Our Backyard" Lecture Series The Fuge/ 780 Falcon Circle/ Warminster, PA 18974

Events are open to the general public / Doors open at 7:00pm Lectures begin promptly at 7:30pm

ColdWarHistory.org RentTheFuge.com

May 14 Johnsville's Role in Project Mercury Don Morway

Our thanks to Doug Crompton,WA3DSP

Contact him with questions: doug@crompton.com

Warminster Hamfest

Sun May 5th
Middletown Grange Fair Grounds
Wrightstown, Bucks County

For details go to: www.k3dn.org/hamfest.htm

Or contact Rich Luce, 215-703-8264

May at Phil-Mont

1 Wed Board Meeting
5 Sun WU3I NCS
8 Wed Membership Meeting
12 Sun KB3IV NCS
Mother's Day
19 Sun KB3IV NCS
23 Thurs VE session
26 Sun W3MHP NCS
27th **Memorial Day**

Don't forget the ARES net on Sunday nights and the Digital net on Tuesday nights.

--... …-- -.. . -. -.. …-- -…

Also in May …

4th Kentucky Derby Day

6th Eiffel Tower opens in 1889

11th Twilight Zone Day (hear the music?)

15th Chocolate chip day

18th Armed forces day

24th First Morse Code Message Sent from Washington DC to Baltimore in 1844.

28th Jim Thorpe birthday

29th JFK birthday

First Class Mail

The Blurb
The Phil-Mont Mobile Radio Club, Inc
1700 Street Rd. Apt. H3, Warrington PA, 18976